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Appl. No. 10/605,520
Reply to Office action of October 04, 2007**REMARKS/ARGUMENTS****Request for Continued Examination**

5 The applicant respectfully requests continued examination of the above-indicated application as per 37 CFR 1.114.

Claim Rejections – 35 USC 102

Claims 1, 6-10, 14, and 19-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Byers et al. (USPN 5596716A).

10 **Response:****Claims 1 and 14**

15 The applicant asserts that Byers does not anticipate applicant's claim 1, as Byers fails to teach the claimed features "a plurality of higher-level subroutines, each higher-level subroutine used for calling at least a lower-level subroutine to control the hardware circuit to execute operations corresponding to the lower-level subroutine called by the higher-level subroutine", "a plurality of recovery subroutines, each recovery subroutine corresponding to a recovery operation, wherein the hardware circuit is controlled to execute various corresponding recovery operations after the processor executes various recovery subroutines," and "an error-handling subroutine for calling the recovery subroutines according to the error code" as recited in 20 applicant's claim 1. (*emphasis added*) In other words, the applicant asserts that the claimed hierarchical software structure having subroutine calls included therein is not anticipated by teaching of Byers.

25 In col. 12, lines 18-27, Byers explicitly states that the normal operation of the computer system continues when a fault is found passive to the computer system, while the normal operation of the computer system is interrupted when a fault is found critical to the computer system. Therefore, Byers discloses a variety of exemplary fault types each assigned with an error priority indicating severity of the corresponding fault in the computer system; in this way, Byers' support controller can 30 determine when and how to handle the error according to the received error priority

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signal (col. 12, line 28 – col. 13, line 16 & col. 14, lines 4-33). In addition, Byers further teaches that the circuitry of the computer system is divided into a plurality of groups each having an error detection register to provide a designated priority error signal to the support controller (col. 13, lines 39-62). In view of above disclosure of

5 Byers, the applicant respectfully points out that Byers merely discloses that the error detection register provides an error priority signal to the support controller upon the detection of a fault, and the support controller interprets the received error priority signal and then determines the appropriate timing to take corrective action thereon. As one can see, Byers fails to teach or suggest any hierarchical software structure

10 pertinent to generating the error priority signal and taking corrective action in response to the error priority signal.

Compared with teaching of Byers, applicant's claim 1, however, claims that each higher-level subroutine calls at least a lower-level subroutine to control the hardware circuit to execute operations corresponding to the lower-level subroutine called by the

15 higher-level subroutine, the operation results of the lower-level subroutine called by the higher-level subroutine is stored in an error code, and an error-handling subroutine calls recovery subroutines, each recovery subroutine corresponding to a recovery operation, according to the error code. (*emphasis added*) The applicant therefore asserts that Byers' method for indicating the severity of a fault within a computer

20 system is different from applicant's claimed method directed to executing recovery operations according to the operation results corresponding to the lower-level subroutine called by the higher-level subroutine.

In conclusion, as none of the lower-level subroutines, higher-level subroutines, recovery subroutines, and error-handling subroutine recited in applicant's claim 1 is

25 disclosed by Byers, the claimed method having these particular subroutines involved therein is not anticipated by Byers. That is, the claimed limitation "after the processor executes the higher-level subroutine, executing the error-handling subroutine to allow the processor to control the hardware circuit to execute recovery operations according to the operation results corresponding to the lower-level subroutine called by the

30 higher-level subroutine" is not anticipated by the cited prior art. (*emphasis added*)

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Claim 1 should be found allowable over Byers. Withdrawal of the rejection and reconsideration of independent claim 1 are respectfully requested.

Furthermore, in view of above statements, the applicant asserts that claim 14, having similar limitations recited in claim 1, should be found allowable over Byers. Withdrawal
5 of the rejection and reconsideration of independent claim 14 are respectfully requested as well.

Claims 6 and 19

As stated above, the applicant respectfully points out that Byers fails to teach a
10 program code having lower-level subroutines called by higher-level subroutines. Therefore, the claimed limitation defining that the operation results corresponding to the lower-level subroutines will be recorded in the same error code being a global variable of the program code is not anticipated by teaching of Byers. Claims 6 and 19 should be found allowable over the cited prior art. In addition, should an allowance be
15 made for claims 1 and 14, the applicant respectfully requests a quick allowance for claims 6 and 19 being dependent upon claims 1 and 14.

Claims 7-10 and 20-23

Claims 7 and 20 define that the program code further comprises a plurality of
20 next-level subroutines and each lower-level subroutine is used for calling at least a next-level subroutine. As stated above, the claimed hierarchical software structure having subroutine calls involved therein is not anticipated by teaching of Byers. Therefore, the applicant asserts that the claimed limitations recited in claims 7 and 20 are not anticipated by the cited prior art. In addition, should an allowance be made for
25 claims 1 and 14, the applicant respectfully requests a quick allowance for claims 7 and 20 being dependent upon claims 1 and 14.

Regarding claims 8-10 and 21-23 including further limitations for claims 7 and 20 respectively, the applicant asserts that claims 8-10 and 21-23 dependent upon claims 1 and 14 should be allowed if claims 1 and 14 are found allowable over the cited prior art.

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Claim Rejections – 35 USC 103

Claims 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Byers et al. in view of Sim et al (USPN 6785212B1).

Response:

- 5 Claims 4 and 17 are dependent upon claims 1 and 14 respectively, and should be allowed if claims 1 and 14 are found allowable over the cited prior art.

Claims 5 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Byers et al. in view of Okada et al (USPN 6530034B1).

10 **Response:**

Claims 5 and 18 are dependent upon claims 1 and 14 respectively, and should be allowed if claims 1 and 14 are found allowable over the cited prior art.

Patentability of New Claims 27 and 28

- 15 As illustrated in Fig. 5 and stated in the specification paragraph [Para 36] of applicant's disclosure, the error-handling subroutine is used for unifying and managing all the corresponding error recovery operations so that the normal execution flow of the firmware code is independent of the error recovery flow, simplifying the normal execution flow and the error recovery mechanism. Therefore, claims 27 and 28 are newly added and
20 include limitations directed to above-identified feature of using the error-handling subroutine to **unify and manage recovery operations of all subroutines included in the program code, except the error-handling subroutine**. No new matter is introduced.

- In view of above arguments, the applicant asserts that this claimed feature is neither taught nor suggested by the cited references, alone or in combination. Claims 27 and 28
25 should be found allowable.

Allowable Subject Matter

- As independent claims 1 and 14 should be found allowable over the cited references according to above-mentioned arguments, the applicant believes that claims 2, 3, 12, 13,
30 15, 16, 25, and 26, dependent on claims 1 and 14 respectively, should still remain in the

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allowable state.

Conclusion

5 In light of above reasons, the applicant asserts that the limitations recited in independent claims 1 and 14 are not anticipated by the cited prior art. Claims 1 and 14 therefore should be found allowable over the cited prior art. Withdrawal of the rejections to claims 1 and 14 is respectfully requested. In addition, withdrawal of the rejections to claims 4-10 and 17-23 is respectfully requested as claims 4-10 and 17-23 are dependent upon claims 1 and 14.

10 As all of the pending claims are submitted in a condition for allowance, the applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Sincerely yours,

15 Winston Hsu

Date: 01.03.2008

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